



MIDDLEFIELD-ELLIS-WHISMAN (MEW) STUDY AREA

Mountain View, California

November 1988

This fact sheet:

- Summarizes the cleanup options considered and describes EPA's proposed remedy to clean up the Study Area;
- Describes the history of the Study Area;
- Explains the federal Superfund program; and
- Identifies opportunities for community involvement in the cleanup action at MEW.

A glossary of terms that appear in **bold-face type** is found on page 9. EPA encourages the community to participate in its cleanup selection process.

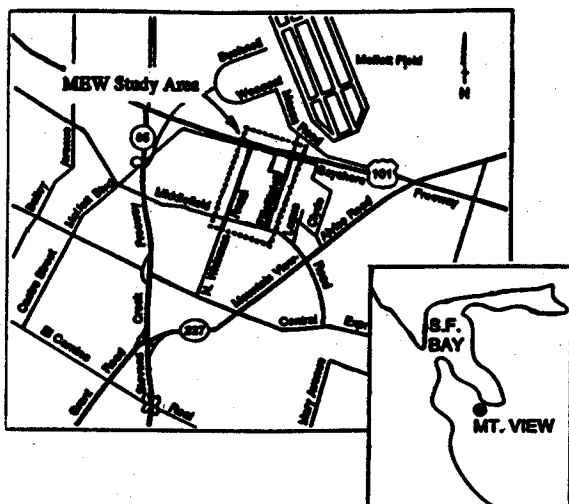


Figure 1
Area Map

EPA ANNOUNCES PROPOSED PLAN TO CLEAN UP MEW SUPERFUND SITES

The U.S. Environmental Protection Agency (EPA) has released a draft study that evaluates a range of cleanup alternatives for soil and groundwater contamination at the Middlefield-Ellis-Whisman (MEW) Study Area, located in Mountain View, California (see Figure 1). The MEW Study Area includes facilities owned or operated by approximately twenty companies, including three separate listed or proposed Superfund sites: Fairchild Semiconductor Corporation, Intel Corporation, and Raytheon Company. Based on the alternatives evaluated in this study, known as a Feasibility Study (FS), described below, EPA has identified a proposed cleanup plan (the "proposed remedy") for the Study Area. The Feasibility Study is available for review at the information repository identified on page 10.

The proposed remedy involves groundwater treatment for both the shallow and deep aquifer systems. Contaminated groundwater will be extracted through existing wells and additional wells installed on and near the Study Area. All contaminated groundwater will be treated by **air stripping**. All air emissions will meet applicable standards. If necessary, this air will be treated using a **carbon treatment** system. Several additional air stripping units will be installed. The exact number and location of these new wells and air stripping units will be determined during the **Remedial Design** phase of the project.

Contaminants within the soil (both inside and outside the existing **slurry wall** system) will be extracted using "vapor extraction wells." The vapor will then be treated with carbon, if necessary.

The details and descriptions of these processes are provided within this fact sheet.

OPPORTUNITIES FOR COMMUNITY INVOLVEMENT

Public Review and Comment Period

EPA welcomes your participation and encourages you to review and comment on the Feasibility Study during the public comment period: November 21, 1988 through January 9, 1989. All comments received by EPA will be considered in the selection of the remedy. Copies of the Remedial Investigation (RI), draft Feasibility Study, and Risk Assessment reports, and other site-related documents are available at the information repository identified on page 10.

You can send written comments postmarked no later than January 9, 1989 to:

Glenn Kistner
Remedial Project Manager
U.S. Environmental Protection Agency
215 Fremont Street (T-4-5)
San Francisco, CA 94105

Community Meeting

Residents of Mountain View and other interested parties are invited to an upcoming meeting regarding investigation and cleanup activities at the MEW Study Area. EPA staff will report on the cleanup alternatives, including EPA's proposed remedy.

Wednesday, December 14, 1988, 7:00 pm
Crittenden Middle School
Multi-Purpose Room
1701 Rock Street
Mountain View, CA

You will have a chance to ask questions and comment on the cleanup alternatives at the meeting. Comments may also be submitted in writing during the comment period.

Comments may also be made by calling EPA's Toll-Free Information Line at (800) 231-3075.

WHAT IS SUPERFUND?

Superfund is the commonly-used name for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), a federal law enacted in 1980 and amended in 1986. CERCLA enables EPA to respond to hazardous waste sites that threaten public health and the environment.

Two major steps in the Superfund process are to conduct an investigation of a site (called a Remedial Investigation) and evaluate possible cleanup alternatives (the Feasibility Study). During the Remedial Investigation (RI), information is gathered to determine the general nature, extent, and sources of contamination at a site. The Feasibility Study (FS) evaluates different cleanup alternatives for the site in light of information collected during the RI. Based on the FS and public comments, EPA selects a cleanup alternative that meets the following criteria: overall protection of human health and the environment; reduction of toxicity, mobility, and volume of contamination; short-term and long-term effectiveness; implementability; cost; community

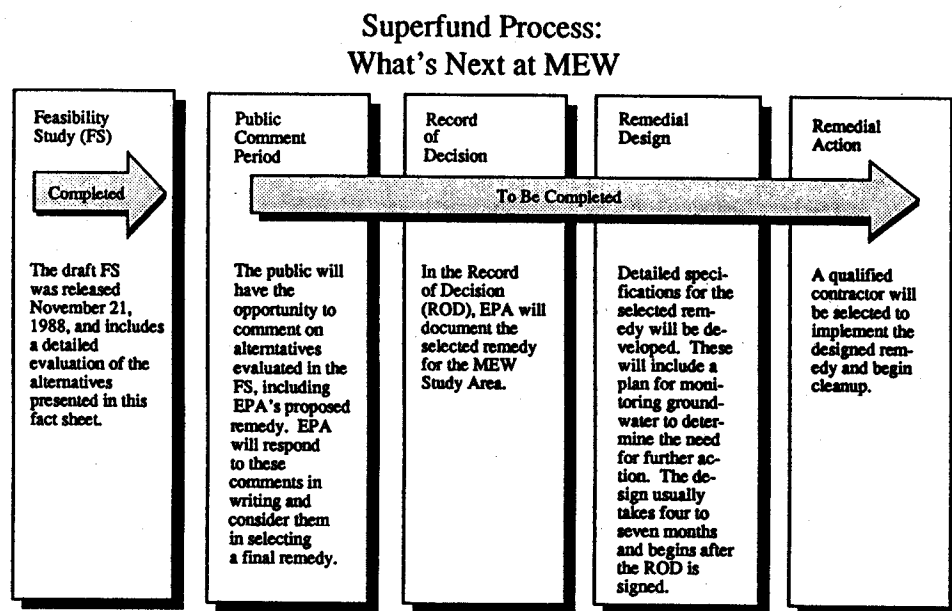


Figure 2

acceptance; state acceptance; and compliance with state and federal regulations.

Once the final cleanup method has been selected, EPA will formalize

this decision by signing a "Record of Decision" (ROD). Design and implementation of the cleanup method (Remedial Design and Remedial Action) can then proceed (see Figure 2).

INTRODUCTION

Soil and groundwater contamination within the MEW Study Area was first identified in 1981. Investigations also have revealed other areas of soil and groundwater contamination in and near the City of Mountain View, including one site at Moffett Field Naval Air Station (NAS). Only those cleanup activities relating to the MEW Study Area are described in this fact sheet (see Figure 3); a brief description of the other sites in Mountain View, including the Moffett Field site, is provided in the MEW "Community Relations Plan," available at the information repository identified on page 10.

Various facilities located in the vicinity of the MEW Study

Area are currently or were previously involved in activities requiring the storage, handling, and use of a variety of hazardous chemicals, including **metals** and **Volatile Organic Compounds (VOCs)**. Investigations at several of these facilities have revealed that chemicals are present in the soil and groundwater. Contamination at the MEW Study Area consists primarily of trichloroethylene (TCE), a VOC commonly used as a degreaser. Concentrations of TCE and other VOCs in the groundwater in some areas of the MEW Study Area exceed applicable water quality standards.

Recent studies have shown that the contaminated groundwater at MEW (commonly known as a "plume") has migrated onto Moffett Field NAS which appears to have mixed, in part, with contamination emanating from Moffett Field NAS. Contamination at or emanating from MEW is considered part of the MEW Study Area. There are other groundwater contamination areas on Moffett Field NAS that have not emanated from the MEW Study Area or mixed with the MEW plume. These areas are considered part of the Moffett Field site and are being addressed by the U.S. Navy. The MEW plume is illustrated in Figure 3.

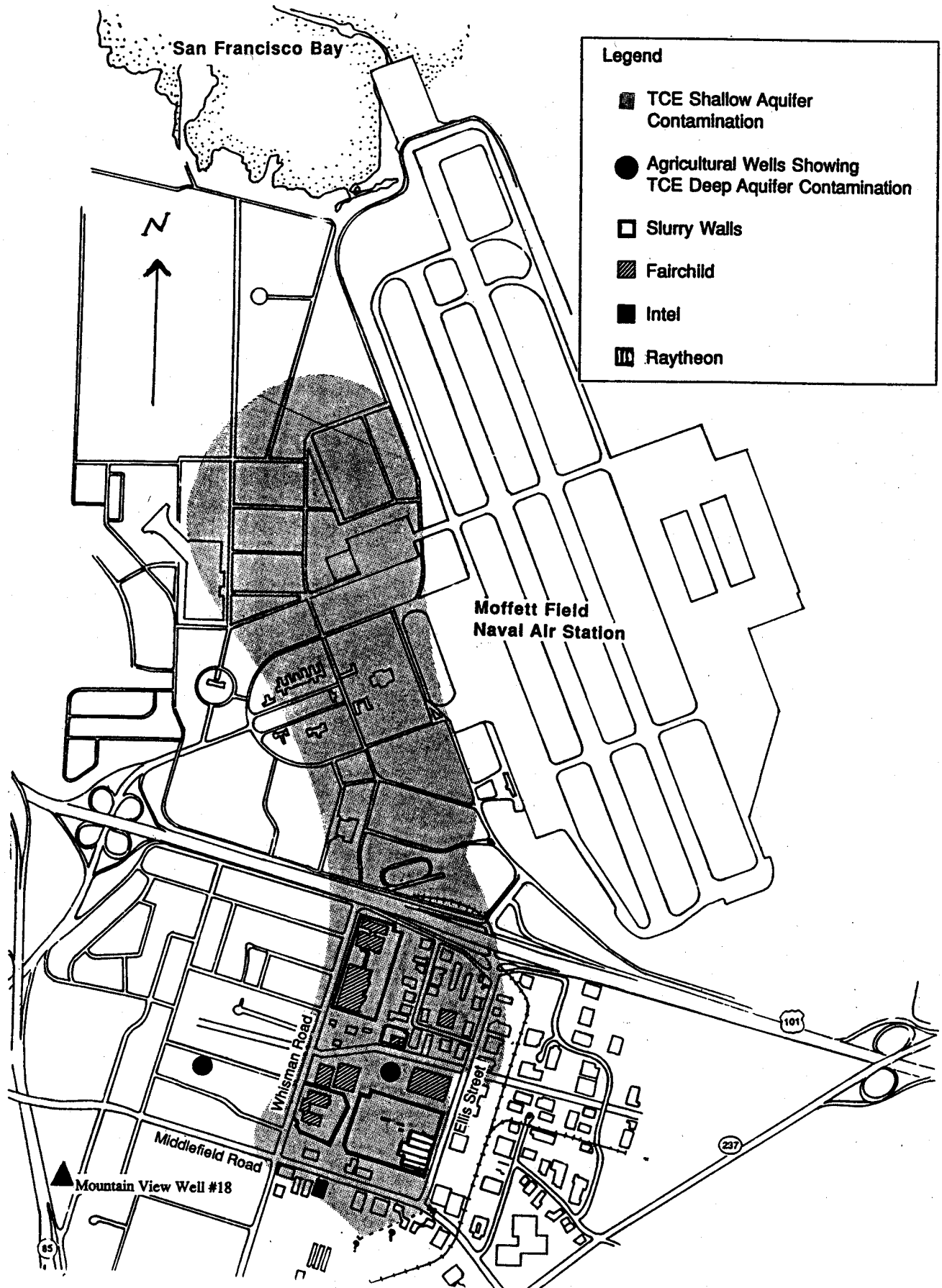


Figure 3
MEW Plume and Study Area

MEW STUDY AREA HISTORY

Initially, EPA identified five companies — referred to as **potentially responsible parties (PRPs)** — that may have contributed to soil and groundwater contamination at the MEW Study Area. Approximately twenty additional PRPs have been identified at this time. Of the original five PRPs, three (Fairchild, Intel, and Raytheon) offered to undertake interim cleanup actions and enter into a **consent agreement** with EPA and conduct investigations.

Under the provisions of the consent agreement that was entered, Fairchild, Intel, and Raytheon are responsible for investigating the contamination within their own property boundaries, and all three companies are responsible for investigating the extent of the MEW groundwater contamination. EPA will negotiate with all PRPs to determine their cleanup responsibility after the close of the public comment period.

The cleanup actions taken to date at the MEW Study Area by Fairchild, Intel, and Raytheon include:

- Contaminated Soil Removal and Treatment;
- Tank Removal and Replacement;
- Installation of Slurry Walls;
- Groundwater Extraction and Treatment; and
- Well Sealing.

The following is a brief outline of PRP and regulatory actions taken at the MEW Study Area.

1981

TCE soil and groundwater contamination first detected at MEW.

Intel removes a solvent holding tank identified as a potential source of the contamination.

1982

Soil and groundwater investigations conducted by Fairchild demonstrate that contamination is more widespread than earlier believed. Results show that several non-drinking water wells have concentrations of TCE exceeding applicable state and federal water quality standards. Both the federal **Maximum Contaminant Level (MCL)** and the state **Action Level** for TCE is **5 parts per billion (ppb)**.

The California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), initiates a leak detection program to define the extent of leakage from underground storage tanks and pipes in the South Bay area. Cleanup actions are taken, where necessary.

Fairchild and Intel install wells to extract groundwater for treatment to control the migration of the contaminant plume.

1984

Fairchild, Intel, and Raytheon sites are proposed for the National Priorities List (NPL), a list of the top-priority hazardous waste sites in the country that are eligible for investigation and cleanup under the Superfund program.

Intel excavates and treats 4,000 cubic yards of contaminated soil on its property.

1985

RWQCB refers five PRPs to EPA for cleanup under Superfund. EPA signs a consent agreement with Fairchild, Intel, and Raytheon to conduct a comprehensive investigation of the MEW Study Area. The other two original PRPs (Siltec and NEC) decline to enter into the consent agreement and are placed under RWQCB enforcement authority.

1986

As a result of migration through abandoned agricultural wells, TCE contamination is detected in a limited area of the deep aquifers in Mountain View at concentrations exceeding applicable state and federal water quality standards.

Raytheon installs several wells and begins to pump and treat contaminated groundwater under its property.

Fairchild constructs three slurry walls to contain contaminants within its property.

1987

Raytheon constructs a slurry wall to contain contaminants within its property, and performs a soil vapor extraction study.

Fairchild seals all of the known agricultural wells on its property to prevent contaminant migration to deep aquifers.

1988

The MEW Remedial Investigation is concluded, and the draft Feasibility Study report is issued.

Is My Drinking Water Safe?

Yes. The City of Mountain View operates and maintains the public water supply system and ensures that drinking water supplied to consumers meets all state and federal drinking water standards. The public water supply well closest to MEW is Mountain View Well #18 (see Figure 3). The water from Mountain View Well #18 is blended with surface water from the Hetch Hetchy system. Due to the drought, this well was put back into use this summer after being closed for routine maintenance. EPA has determined that at the historic and current pumping rate, the contamination from the MEW Study Area will not reach Mountain View Well #18. The City of Mountain View regularly tests each of its wells, including Well #18.

THE RISK ASSESSMENT

EPA uses risk assessments to analyze remedial alternatives and establish cleanup goals. As part of the MEW Study Area investigation, EPA prepared a "baseline risk assessment" to evaluate the potential effects of the "No Action" alternative on public health and the environment. This baseline risk assessment is called an "Endangerment Assessment."

The purpose of risk assessments is to estimate the potential health and environmental impacts of exposure to toxic chemicals. Risk assessments estimate the possibility that one additional occurrence of cancer will result from exposure to contamination. For example, a one in a million risk level is equal to a one in a million chance that one additional occurrence of cancer will result from exposure to contamination. EPA considers risks greater than one in ten thousand (10⁻⁴) "unacceptable."

EPA uses very conservative assumptions in preparing risk assessments. For example, EPA assumes that individuals consume two liters of drinking water per day from

wells situated within a contaminant plume, over a 70-year lifetime. However, no drinking water wells currently draw from contaminated groundwater at MEW.

The results of the baseline risk assessment for the No Action alternative for the MEW Study Area indicate that exposure to contaminants in groundwater poses the greatest potential public health concern. However, no immediate health threat exists from this contamination, because no drinking water wells draw from the more contaminated shallow aquifer system, and drinking water wells drawing from the deep aquifer are not situated within the contaminant plume. Nevertheless, EPA considers the shallow aquifer system a potential future source of drinking water and will establish cleanup goals that will be protective of public health should the aquifer be used for drinking. The cleanup goals developed to attain this safe level for the shallow aquifer system, and the soil and deep aquifer cleanup goals, are described in detail on page 7.

SOIL AND GROUNDWATER AT MEW

A brief description of the complex soil and groundwater network that exists at the MEW Study Area is provided below. For the purposes of explanation, this network is divided into four zones: soils (outside the slurry walls), shallow aquifers, deep aquifers, and slurry wall system (see Figure 4).

Soils:

This zone represents the most shallow soils in the MEW Study Area, located outside the slurry walls. These soils consist primarily of silts and clays with no significant ground-water-bearing zones (aquifers).

Shallow Aquifers:

This zone is defined as those shallow aquifers located outside the slurry walls. The shallow aquifers are isolated from deeper aquifers by a clay layer known as an "aquitard" which extends across the MEW Study Area.

Deep Aquifers:

Deep aquifers exist below the clay aquitard. Much of the drinking water for the region is pumped from these aquifers. An important aspect is that contamination from shallow aquifers potentially could migrate down to these deep aquifers through abandoned wells and other **conduits**. Some deep aquifer contamination has already occurred at the MEW Study Area, and several potential conduits have been closed to prevent additional contaminant migration.

Slurry Wall System:

This system contains soils and aquifers confined by several slurry walls. Some areas within this zone contain little or no groundwater, while others are saturated with groundwater (forming an aquifer).

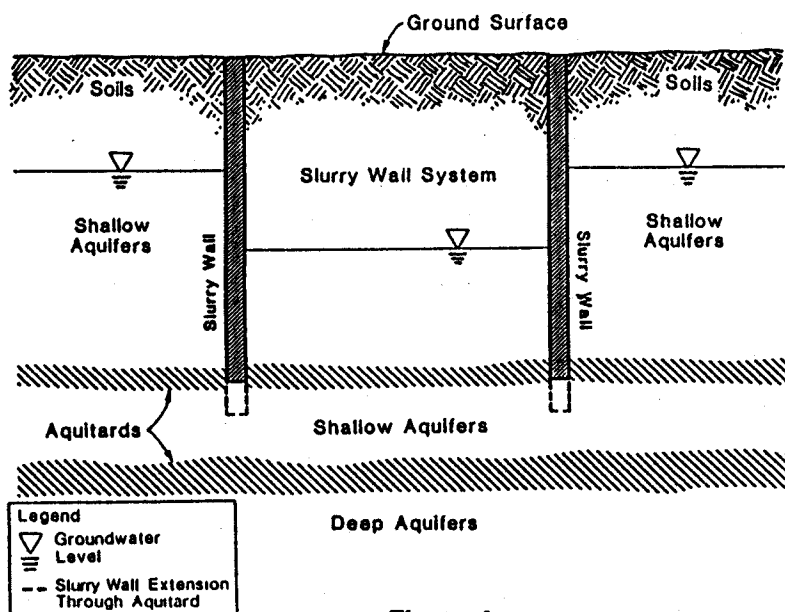


Figure 4
MEW Study Area Cross Section

PROPOSED CLEANUP ALTERNATIVES

The alternatives that EPA evaluated are described here and outlined in Figure 7. A detailed description of these alternatives is provided in the Feasibility Study report located in the information repository identified on page 10. EPA's recommended cleanup method for each zone (i.e., soils, shallow aquifers, deep aquifers, slurry wall system) is identified by *italics*.

SOILS

No Further Action:

The No Action alternative serves as a "baseline" against which other alternatives are compared. For soils, only soil monitoring would be conducted, and all soil pilot study activities would be discontinued.

Vapor Extraction and Treatment:

Soil vapor extraction involves removing the volatile soil contaminants without excavating the soil itself. This is accomplished by installing "vapor extraction wells" through which air containing VOCs is pumped from the soil. Contaminants in the extracted air are then removed using carbon treatment, if necessary, and the treated air is released (see Figure 5). This treatment process is designed to meet all applicable air emission standards.

Partial Excavation and Treatment:

This alternative involves excavating and aerating the soil, which causes the VOCs to evaporate. Treated soils are then placed back in their original locations. The areas that would be excavated are those with the highest level of contamination. The primary disadvantages of this alternative are that soils located under buildings and other structures could not be excavated or treated, and treatment of the air emissions is difficult.

Partial Excavation and Treatment with Vapor Extraction:

This alternative involves a combination of the previous two cleanup alternatives. Excavation and aeration would be used at those soil contamination zones that are accessible. Vapor extraction would be used for selected contamination zones that are not easily accessible, such as soil contamination zones located under buildings.

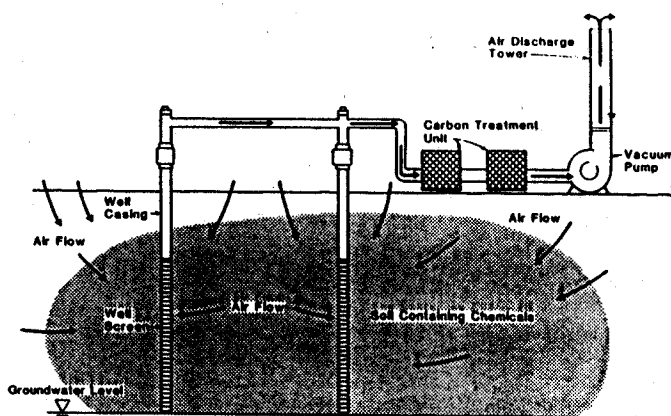


Figure 5

Soil Vapor Extraction System

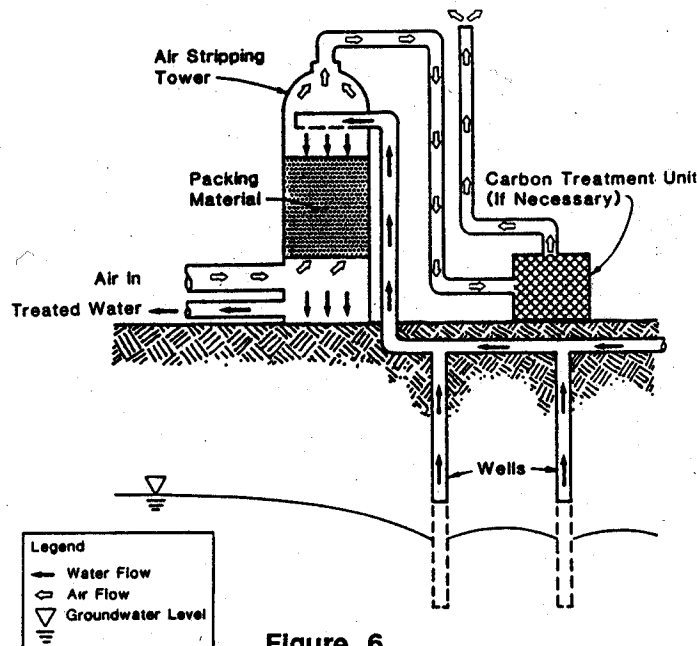


Figure 6
Air Stripping System

SHALLOW AQUIFERS

No Further Action:

The No Action alternative for the shallow aquifers would involve only groundwater monitoring; no additional cleanup activities would be conducted.

Control Contaminant Plume:

This alternative involves a relatively low rate of groundwater pumping, which would prevent the plume from spreading but not reduce its size. Contaminated groundwater extracted during this process would be treated using air stripping, a common treatment technology described below.

Pump and Treat:

This alternative is similar to the previous alternative but is more aggressive. The primary difference between the "Control Contaminant Plume" and the "Pump and Treat" alternatives is that the Pump and Treat alternative involves a higher rate of groundwater pumping and treating, which requires more groundwater extraction wells. This method should decrease the size of the contaminant plume, instead of just preventing the spread of the plume. Contaminated groundwater is pumped into an "air stripping tower," where it trickles down over a large surface area, allowing volatile contaminants to evaporate (see Figure 6). The emissions from the air stripping system will meet all applicable air emission standards. If necessary, air emissions will be treated with carbon.

Containment (Area-Wide Slurry Wall):

This alternative would involve the installation of additional slurry walls around the entire MEW plume to prevent the shallow groundwater contamination from spreading, thereby reducing the risk of exposure. However, implementation of a "containment-only" alternative would not result in a rapid decrease in the level of contamination in the shallow aquifers.

DEEP AQUIFERS

No Further Action:

The No Action alternative for the deep aquifers involves no cleanup actions beyond those that have been conducted to date. Groundwater monitoring would be conducted to determine the long-term effectiveness of this alternative.

Pump and Treat:

This alternative is described above for shallow aquifers and is essentially the same for deep aquifers.

SLURRY WALL SYSTEM

No Further Action:

The No Action alternative for the slurry wall system would involve only regular monitoring of the soil and groundwater contamination within the zone. No further cleanup activities would be conducted.

Vapor Extraction and Treatment:

This alternative is similar to the "Vapor Extraction and Treatment" alternative described above for soils. However, limited amounts of groundwater exist within the slurry wall

system and must be removed from saturated soils before gases can be extracted from these soils and treated. This "dewatering" of the aquifers is accomplished by pumping the groundwater and treating it using air stripping.

Groundwater Control and Treatment:

This alternative involves pumping groundwater at a relatively low rate from wells located within existing slurry walls. This pumping, together with the slurry wall system, inhibits the movement of contaminated groundwater to areas outside the slurry walls. Contaminated groundwater extracted during this process is treated by air stripping.

Flushing:

This alternative involves extracting and treating large quantities of groundwater both from existing wells located within the slurry walls and from additional wells that would be installed. The extracted groundwater would be treated using air stripping and pumped back into the aquifers. Normally, the "flushing" process would remove contamination. However, this alternative would not be effective at MEW due to the nature of the soils.

Partial Excavation and Treatment:

This alternative is essentially the same as was described above for soils.

CLEANUP GOALS

Contamination Zone

Cleanup Goal for TCE

Deep Aquifers (Current Drinking Water Source)
Shallow Aquifers
Soils Inside Slurry Walls
Soils Outside Slurry Walls

0.8 ppb
5 ppb (MCL for TCE)
1 part per million (ppm)
0.5 ppm

Cleanup goals, based in part on the results of the risk assessment and groundwater use, are established at Superfund sites during the cleanup process. Cleanup goals do not necessarily represent the actual "cleanup levels" that are eventually achieved, because the effectiveness of the remedy can only be determined during implementation (Remedial Action phase) of the remedy. Moreover, implementation may demonstrate that the cleanup goals are not technologically achievable. Therefore, EPA will review the MEW cleanup goals every five years to reassess the goals and the technologies to achieve those goals.

Separate cleanup goals have been established for the MEW Study Area for soil (both inside and outside the slurry walls) and for groundwater (both shallow and deep aquifers) contamination. The proposed TCE cleanup goals for the Study Area are listed in the above table.

The proposed cleanup goal for the deep aquifer system is more stringent than the goal for the shallow aquifers, because the deep aquifer is a current source of drinking water and will likely be easier to clean up due to the nature of the aquifer itself. Also, the deep aquifer contamination is much

less widespread than the shallow aquifer contamination. The 0.8 ppb TCE cleanup goal for deep aquifers represents a risk reduction to a one in a million chance of an additional occurrence of cancer, using EPA's conservative exposure assumptions described on page 5. It should be noted that, at this time, 0.8 ppb TCE is near the analytical detection limit for TCE. The 5 ppb TCE cleanup goal for shallow aquifers corresponds to applicable water quality standards (MCL and state Action Level). Achieving the TCE cleanup goal will result in cleanup of other VOCs in the aquifers to levels below their corresponding MCLs.

The proposed TCE cleanup goal for soils within the slurry walls is less stringent than the goal for soils outside the slurry walls, because the slurry walls, in conjunction with groundwater pumping, provide extra protection in preventing the migration of contamination inside the slurry walls to aquifers outside the slurry walls. (The majority of the soil contamination exists within the slurry walls.) A 0.5 ppm cleanup level for soils outside the slurry walls will assure that any further leaching of these contaminants into the groundwater will not result in groundwater contamination exceeding MCLs.

PROPOSED ALTERNATIVES	TECHNICAL FEASIBILITY (IMPLEMENTABILITY)	EFFECTIVENESS	REDUCTION OF TOXICITY, MOBILITY, AND VOLUME (TMV)	COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS	RISK ASSESSMENT	ESTIMATED CLEANUP TIME (YEARS)	COSTS (\$1,000)	
							ADDITIONAL CAPITAL COSTS	ANNUAL O&M COSTS
SOILS								
NO FURTHER ACTION	No Technical Limitations	Not Effective	No Reduction in TMV	Does Not Comply	Potential Public Health Risks Remain	Indefinitely	0	0
VAPOR EXTRACTION AND TREATMENT	Proven, Reliable Technology; Demonstrated at MEW	Effective	Significant Reduction in TMV	Compliance is Achievable	Potential Public Health Risks Significantly Reduced	1 to 6	1,153	847
PARTIAL EXCAVATION AND TREATMENT	Proven, Reliable Technology; Demonstrated at MEW	Effective	Significant Reduction in TMV	Air Emissions May Not Comply	Potential Public Health Risks Possibly Increased	< 1	6,673	0
PARTIAL EXCAVATION AND TREATMENT WITH VAPOR EXTRACTION	Proven, Reliable Technology	Effective	Significant Reduction in TMV	Air Emissions May Not Comply	Potential Public Health Risks Possibly Increased	1 to 6	7,257	280
SHALLOW AQUIFERS								
NO FURTHER ACTION	No Technical Limitations	Not Effective	No Reduction in TMV	Does Not Comply	Potential Public Health Risks Remain	Indefinitely	310	685
CONTROL CONTAMINANT PLUME	Proven, Reliable Technology	Effective, But Not Long-Term Solution	Controls Mobility; Volume Slightly Reduced	Compliance May Be Achievable	Potential Public Health Risks Reduced	Indefinitely	2,703	1,678
PUMP AND TREAT	Proven, Reliable Technology; Demonstrated at MEW	Very Effective	Significant Reduction in TMV	Compliance is Achievable	Potential Public Health Risks Significantly Reduced	46 to > 300	5,567	2,503
CONTAINMENT (AREA-WIDE SLURRY WALL)	Proven, Reliable Technology; Demonstrated at MEW	Effective, But Not Long-Term Solution	Controls Mobility Only	Compliance May Be Achievable	Potential Public Health Risks Remain	Indefinitely	35,418	0
DEEP AQUIFERS								
NO FURTHER ACTION	No Technical Limitations	Not Effective	No Reduction in TMV	Does Not Comply	Potential Public Health Risks Remain	Indefinitely	82	187
PUMP AND TREAT	Proven, Reliable Technology; Demonstrated at MEW	Very Effective	Significant Reduction in TMV	Compliance is Achievable	Potential Public Health Risks Significantly Reduced	2 to 45	739	449
SLURRY WALL SYSTEM								
NO FURTHER ACTION	No Technical Limitations	Not Effective	No Reduction in TMV	Does Not Comply	Potential Public Health Risks Remain	Indefinitely	17	160
VAPOR EXTRACTION AND TREATMENT	Proven, Reliable Technology; Demonstrated at MEW	Effective	Significant Reduction in TMV	Compliance is Achievable	Potential Public Health Risks Significantly Reduced	3 to 6	2,204	2,383
GROUNDWATER CONTROL AND TREATMENT	Proven, Reliable Technology; Demonstrated at MEW	Effective	Controls Mobility; Volume Slightly Reduced	Compliance is Achievable	Potential Public Health Risks Significantly Reduced	Indefinitely	0	1,000
FLUSHING	Reliable Technology Depending on Nature of Soils	Not Effective at MEW	Significant Reduction in TMV	Compliance is Achievable	Potential Public Health Risks Significantly Reduced	45	2,717	2,326
PARTIAL EXCAVATION AND TREATMENT	Proven, Reliable Technology	Effective in Soils Only	Significant Reduction in TMV in Soils Only	Air Emissions May Not Comply	Potential Public Health Risks Possibly Increased	< 1	869	0

Figure 7
Summary of Proposed Alternatives

GLOSSARY

Action Level: Unenforceable water quality standards set by the California Department of Health Services (DHS) at levels to protect public health. For carcinogens in drinking water, state action levels are based upon an additional one in one million cancer risk.

Aeration: The process of exposing contaminated soils to air so that the volatile contaminants in the soil will evaporate into the air.

Air Stripping: A treatment system that removes volatile organic compounds from contaminated water by forcing air through the water. The volatile chemicals evaporate upon exposure to the air, leaving the water with substantially reduced contaminant levels.

Aquifer: An underground geologic structure composed of materials such as sand, soil, or gravel that can store and supply groundwater to wells and springs. Most aquifers used in the United States are within one thousand feet of the earth's surface.

Aquiclude: A subsurface layer of relatively impermeable material (usually clay). An aquiclude typically divides groundwater-bearing zones into separate aquifers.

Carbon Treatment: A well established treatment process that is especially effective in removing organic contaminants, including VOCs, from water.

Conduits: Wells, buried utility lines, or similar structures that have the potential to act as passageways for groundwater contamination. Conduits from shallow contaminated aquifers to deep aquifers are of particular concern.

Consent Agreement: An agreement between the U.S. EPA (or other regulatory agency) and the potentially responsible parties (PRPs) that describes the specific actions that the PRPs will undertake at a hazardous waste site.

Groundwater: Underground water that fills pores between particles of soil, sand, and gravel or openings in rocks to the point of saturation. Where groundwater occurs in significant quantity, it can be used as a water supply.

Leaching: The extraction of contaminants from a solid into a liquid. For example, water passing through contaminated soil tends to extract some of the soil contaminants into the water.

Maximum Contaminant Level (MCL): Enforceable federal drinking water standards as promulgated under the federal Safe Drinking Water Act. MCLs apply at the point of use (e.g., at the tap), but are often used in developing groundwater cleanup levels.

Metals: A group of inorganic elements including lead, chromium, and cadmium that can be toxic at relatively low concentrations in certain circumstances.

Parts Per Billion (ppb)/Parts Per Million (ppm): Units of concentration. One drop of

trichloroethylene (TCE), for example, in 2,600 gallons of water equals 1 ppm TCE. One drop in 2,600,000 gallons equals 1 ppb TCE.

Plume: A three-dimensional contamination zone within an aquifer that generally moves in the direction of groundwater flow.

Potentially Responsible Party (PRPs): Any individual(s) or company(s) (such as owners, operators, transporters, or generators) potentially responsible for, or contributing to, the contamination problems at a Superfund site.

Record of Decision: A public document that explains which cleanup alternatives will be used at Superfund sites. The Record of Decision is based on information and technical analysis generated during the Remedial Investigation/Feasibility Study and consideration of public comments and community concerns.

Remedial Design/Remedial Action (RD/RA): The design and implementation of the remedy, respectively, of a Superfund cleanup.

Slurry Wall: A barrier that is installed underground to either (1) prevent groundwater from migrating away from the site; or (2) direct groundwater away from waste materials.

Volatile Organic Compounds (VOCs): An organic (carbon-containing) compound that evaporates (volatilizes) readily at room temperature. One common VOC is trichloroethylene (TCE).

THE TECHNICAL ASSISTANCE GRANT (TAG) PROGRAM: A NEW COMMUNITY RELATIONS OPPORTUNITY

EPA has begun a new community relations activity—the Technical Assistance Grants (TAG) program. The purpose of the TAG program is to assist community groups in interpreting technical information. Under this program, one eligible community group at each Superfund site may obtain one grant of up to \$50,000 in federal funds to provide technical assistance in understanding site documents. To be eligible, a group must:

- be incorporated;
- be able to meet a 35% matching funds requirement (in-kind contributions, i.e., donated goods and services, are permissible) or obtain a waiver of this requirement;
- be able to meet financial and administrative requirements; and
- be capable of preparing a plan to use technical assistance based on EPA's technical work schedule.

It is estimated that it will take from six to nine months to process grant applications and distribute the grants.

For more information about TAGs please contact Helen King Burke, Community Relations Coordinator at EPA's Toll-Free Information Line at 800-231-3075.

MAILING LIST

To be placed on EPA's mailing list for the MEW Study Area, please fill out, detach, and mail this form to:
Helen King Burke

Community Relations Coordinator
U.S. Environmental Protection Agency
215 Fremont St. (T-1-3)
San Francisco, CA 94105

NAME: _____

MAILING ADDRESS: _____

AFFILIATION: _____

PHONE: _____

FOR MORE INFORMATION

Copies of the Feasibility Study and other site-related documents are available at the information repository at:

Mountain View Public Library
585 Franklin Street
Mountain View, CA 94041
(415) 966-6335

Hours:
M-Th 10:00 am - 9:00 pm
F, Sat 10:00 am - 6:00 pm
Sun 12:00 pm - 6:00 pm

If you have any questions about the Feasibility Study or the soil or groundwater contamination at the MEW Study Area, please contact:

Helen King Burke

Community Relations Coordinator
U.S. EPA
215 Fremont Street (T-1-3)
San Francisco, CA 94105
(415) 974-7538

Glenn Kistner

Remedial Project Manager
U.S. EPA
215 Fremont Street (T-4-5)
San Francisco, CA 94105
(415) 974-7199

EPA Superfund Toll-Free Information Line: (800) 231-3075
If you call, please leave a message on the answering machine
and your call will be returned as soon as possible.

United States
Environmental Protection
Agency

Region IX
215 Fremont Street (T-1-3)
San Francisco, CA 94105
Attn: Helen King Burke

Official Business
Penalty for Private Use
\$300

FIRST CLASS MAIL
U. S. POSTAGE
PAID
San Francisco, CA
Permit No. G-35

INSIDE:

- Proposal to Clean Up Contamination at MEW Study Area
- Community Meeting on Wednesday, December 14, 1988
- Review and Comment Period from November 21, 1988 through January 9, 1989